

CLAIMS

1. A sheet comprising at least a first ply P_1 and a second ply P_2 superimposed on each other and made of absorbent paper, such as tissue paper, each ply having a grammage of between 10 and 40 g/m^2 , the first said ply presenting on its outer side cavities formed by embossing, corresponding to protuberances on its other side adjacent to the second ply, characterized in that the first ply P_1 comprises first zones A_1 forming cells with some first cavities (12), the cells being surrounded by second zones A_2 with second cavities (18), the first zones A_1 being in relief on the outer side in relation to the second zones A_2 with a level difference N_A , the first zones A_1 presenting a contour D formed by a marking line.

2. The sheet as claimed in claim 1 whose depth of the first cavities (12) is at the most equal to the depth of the second cavities plus the level difference N_A .

3. The sheet as claimed in either of claims 1 and 2 comprising non-embossed third zones A_3 between the second zones A_2 .

4. The sheet as claimed in either of claims 1 or 2 comprising third embossed zones A_4 between the second zones A_2 .

5. The sheet as claimed in claim 4, characterized in that the embossing of third zones A_4 comprises cavities of a linear shape and/or alignments of cavities.

6. The sheet as claimed in any one of claims 1 to 5 whose second cavities (18) are at least in part aligned with the contour D.

7. The sheet as claimed in any one of claims 1 to 6 whose first cavities (12) are tapered in shape.

8. The sheet as claimed in any one of claims 1 to 7 whose first zones A_1 feature third cavities (20) with a top having a linear shape.

9. The sheet according to any one of the claims 1 to 8 whose second ply P_2 is not embossed.

10. The sheet according to any one of claims 1 to 8 whose second ply P_2 is embossed and presents protuberances, the two plies being in contact through the tops of the protuberances corresponding to the second cavities (18) and/or the tops of the third cavities (20).

11. The sheet as claimed in claim 9 or 10 whose two plies are bonded through at least one application of glue on the top of the second protuberances (18) and/or on the top of the third cavities (20).

12. The sheet as claimed in claim 11 whose first protuberances are not glued.

13. A device for the manufacture of a sheet as claimed in any one of claims 1 to 12 comprising at least one cylinder (100) with a rigid coating suitably engraved so as to present first zones A_1 forming cells surrounded by second zones A_2 , the first zones A_1 comprising first picots (112) and the second zones A_2 comprising second picots (118), the bottom of the engraving of the first zones being at a level N_i , in relation to the rotation axis of the cylinder, lower than level N of the bottom of the engraving of the second zones.

14. The device as claimed in claim 13 in which the top of the first picots (112) is at a level lower than the level N_s of the tops of the second picots (118).

15. The device as claimed in either of claims 13 or 14 whose transition surface between the first zones A_1 and the second zones A_2 consists at least partly of elements with a tapered surface (114) defining a gripping edge D_A .

16. The device as claimed in claim 15 in which the angle formed by the tangent of wall (114) at the level of edge D_A and the cylinder radius is between 20° and 50° , preferably between 25° and 35° .

17. The device as claimed in any one of claims 13 to 16 whose level difference N-Ni is between 0.1 mm and 1.3 mm.

18. The device as claimed in claim 17 whose level difference Ns-N is between 0.1 and 0.7 mm.

19. The device as claimed in claim 18 whose level difference Ns-Ni is between 0.2 and 2.0 mm.

20. A process for manufacturing a sheet as claimed in any one of claims 1 to 12 wherein a band of absorbent paper is embossed by means of a device as claimed in any one of claims 13 to 19.